

THE TEXT-FIGURES IN GRAY'S NEW MANUAL OF BOTANY.

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Two reviews of Gray's Manual of Botany, Seventh Edition, have recently appeared in *Science* and in *RHODORA* respectively. Both reviewers have mentioned that there are numerous illustrations, but neither has bestowed on these illustrations the attention they merit. They are not merely figures of uniform size, so many to the page, but are faithful and beautifully executed representations of important specific characters. When in the old days we pored over the *Carex* keys until we almost knew them by heart, we were often hard put to it to decide whether the perigynium in hand should go under "Beakless" or "Beaked," or whether the puzzling specimen in *Ovales* had a "Perigynium ovate-lanceolate with winged margins" or one "ovate-lanceolate or narrower, scale-like, with little distinction between body and margin," or "Spikes spreading or drooping" or "Spikes erect," trying first the one division, then the other. Here these very points are shown in the figures, and beak and teeth and wings, that almost defy description in words, stand forth in characteristic form. The keys show the most painstaking work, but to make a perfect key is beyond the power of any human being, since Nature does not divide her species dichotomously. An accurate figure of the typical form, then, becomes of the greatest value.

The figures of *Aster* and of *Desmodium* serve as further examples of the fidelity of the drawings and their usefulness in identification of species, illustrating in the former the involucre bracts and the jointed pods in the latter. In like manner are the various diagnostic characters of the different genera brought out. Magnified cross-sections of the stem and portions of the epidermis are figured in *Equisetum*, the achenes in *Sagittaria*, flowers in *Orchidaceae*, the fruiting calyx in *Rumex*, pods and leaves in most of the *Cruciferae*, but rootstocks in *Dentaria*, fruit and cross-section of it in *Umbelliferae*, inflorescence and magnified flowers in *Labiatae*, the very distinct capsules of the commonly confused *Plantago major* and *P. Rugelii*, and so throughout all the genera which are illustrated.

The fidelity of the artist's work to the plant before him is shown in the figure of the grotesque achene of *Carex Tuckermanii* Dewey,

which is nowhere, not even here, described in print. This strikingly characteristic achene years ago led some of us to think that our specimens of this *Carex* must belong to a new species because such an achene was nowhere described, but examination of specimens of *C. Tuckermanii* revealed the fact that this queer achene was characteristic of that species.

There are 1036 figures in all, and each is a work of both science and art.

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HEDEOMA HISPIDA IN CONNECTICUT.— During the recent meeting of the Connecticut Botanical Society at Putnam, Connecticut, I was fortunate enough to discover a quantity of *Hedeoma hispida* Pursh. growing near the Quinebaug River. Although the individual plants were mostly small (5–10 cm. tall), they could be gathered by the handful over an area of an acre or more. The station is in open ground and the soil is a sandy alluvium on the flood-plain of the river, thus offering conditions in some measure similar to those in the native habitat of the plant on the western plains. The woolen mills of the town suggest themselves as the means of its introduction. This seems to be the first record of the species in Connecticut but Mr. W. W. Eggleston has reported its occurrence in Vermont (RHODORA 6:142) and Mr. C. A. Weatherby informs me that there is in the herbarium of the New England Botanical Club a specimen of the same plant collected at Reading, Massachusetts, in 1887 by W. H. Manning and described by him as “a weed in gardens.” — E. B. HARGER, Oxford, Connecticut.

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